

L9 ANSWER 83 OF 95 CAPLUS COPYRIGHT 2007 ACS on STN

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DOCUMENT NUMBER: 90:83054

TITLE: The separation of dansyl amino acids by reversed-phase high performance liquid chromatography

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CORPORATE SOURCE: Dep. Biochem., Univ. Birmingham, Birmingham, UK

SOURCE: Journal of Chromatographic Science (1978), 16(11), 547-52

CODEN: JCHSBZ; ISSN: 0021-9665

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The dansyl amino acids were separated by reversed-phase (high-performance liquid

chromatog. (HPLC) on a single column in .apprx.30 min, using a linear gradient formed from acetonitrile and Na phosphate buffers of approx. neutral pH. The effect of retention times of the pH and ionic strength of the eluting buffer was investigated and, by an appropriate choice of these variables, a separation of most of the derivs. of the 20 amino acids commonly found in proteins may be made on a column of either μ Bondapak C18, or Spherisorb 50DS. The greatest difference between the 2 columns was in the retention of the basic dansyl derivs., particularly α -Dns-His and Dns-Arg. Owing to the quenching of the fluorescence of the dansyl amino acids in aqueous solns., the UV absorbance at 250 nm was used for detection, giving a sensitivity of .apprx.100 pmol for a single component. This system may be useful for the anal. of peptides at high sensitivity and for the quantitation of N- and C-terminal amino acids.

IT 1263-03-2 18468-46-7 69197-99-5

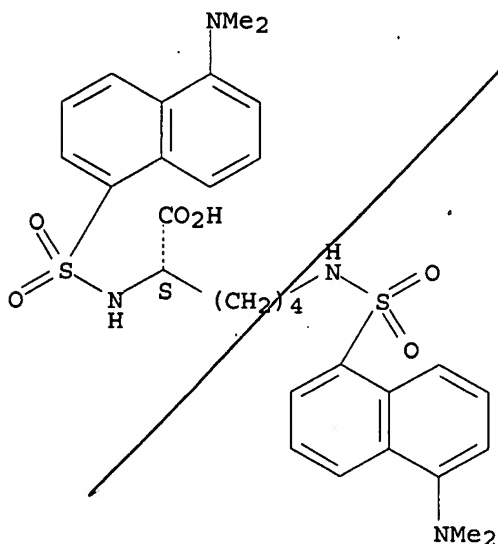
RL: ANT (Analyte); ANST (Analytical study)

(chromatog. of, reversed-phase high-performance liquid)

RN 1263-03-2 CAPLUS

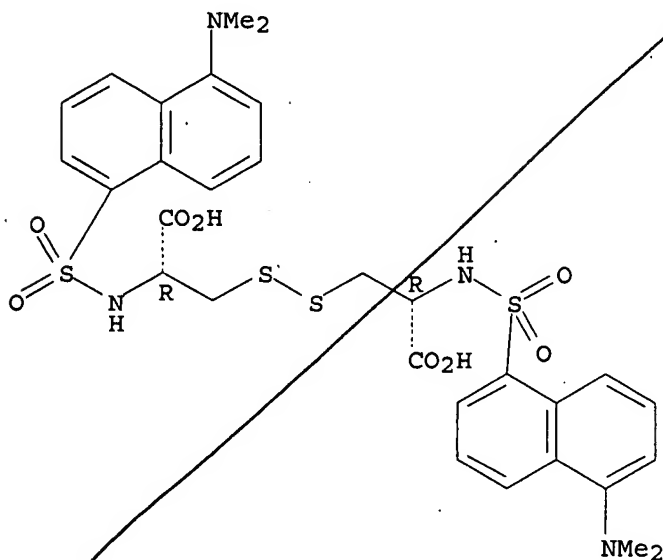
CN L-Lysine, N2,N6-bis[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



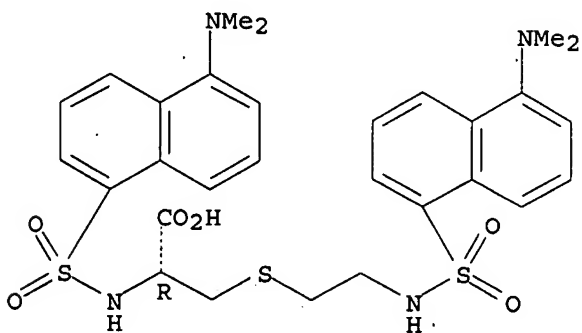
RN 18468-46-7 CAPLUS
 CN L-Cystine, N,N'-bis[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]- (CA INDEX NAME)

Absolute stereochemistry.



RN 69197-99-5 CAPLUS
 CN L-Cysteine, N-[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]-S-[2-[[[5-(dimethylamino)-1-naphthalenyl]sulfonyl]amino]ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



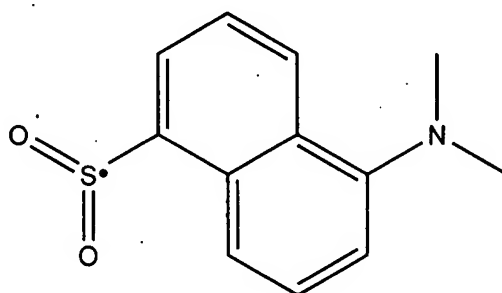
also known as,

bis-Dns-Aec
 (see pg. 550 of
 Wilkinson reference)

Dns \equiv dansyl \equiv 1-dimethylamino-
 naphthylene-5-sulphonyl
 Aec \equiv S- β -aminoethyl cysteine

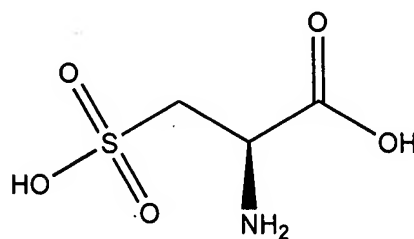
10/5/6, 6/6

from ChemDraw



dansyl

Caution: A radical appears to be present



cysteic acid